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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/750,342	PARK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thoi V. Duong	2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed January 21, 2005.
2. ☒ The allowed claim(s) ~~is~~/are 1-14.
3. ☒ The drawings filed on 29 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |



## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 21, 2005 has been entered.

Accordingly, claims 1 and 14 were amended and claim 15 was cancelled. Currently, claims 1-14 are pending in this application.

### ***Allowable Subject Matter***

2. Claims 1-14 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

*Re claims 1 and 14*, none of the prior art of record discloses, in combination with other limitations as claimed, a plurality of transmitting wires on the lower substrate, the transmitting wires directly connecting the gate and source pads across the sealant such that the source PCB is electrically connected with the gate PCB in the vicinity of the corner of the lower substrate, wherein the plurality of transmitting wires are formed in a curved shape on the lower substrate from the gate pads to the source pads..

The most relevant reference for claims 1 and 14, USPN 6,587,160 B2 of Lee et al. (Lee), fails to disclose or suggest a plurality of transmitting wires directly connecting



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the gate and source pads across the sealant and formed in a curved shape. As shown in Fig. 3, the the transmitting wires 110 disclosed by Lee are not directly connected to the gate pads 101 and the source pads 201 across the sealant 90.

*Re claim 5*, none of the prior art of record discloses, in combination with other limitations as claimed, a repair wire crossing with each gate transmitting wire with the gate insulating layer interposed between the repair wire and the gate transmitting wire.

*Re claim 10*, none of the prior art of record discloses, in combination with other limitations as claimed, first and second repair wires, the first repair wire crossing with each of the source pads with the gate insulating layer interposed therebetween, the second repair wire crossing with each of the gate pads with the gate insulating layer interposed therebetween.

*Re claim 12*, none of the prior art of record discloses, in combination with other limitations as claimed, first and second dummy patterns on the lower substrate, the first dummy pattern being positioned along a first edge of the upper substrate, the second dummy pattern being positioned along a second edge of the upper substrate, the each dummy pattern having at least the same height as the gate transmitting wire.

The most revelant references for claims 5, 10 and 12, USPN 5,684,555 of Shiba et al. and USPN 5,995,189 of Zhang, fail to disclose or suggest a liquid crystal display comprising a source PCB and a gate PCB electrically connected with the plurality of source pads and the plurality of gate pads, respectively, the source PCB and the gate PCB being formed outside the area in which the sealant is formed such that the upper substrate is not formed over the source PCB or the gate PCB; a plurality of transmitting



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wires being electrically connected with the gate and source pads across the sealant such that the source PCB is electrical connected with the gate PCB; a repair wire crossing with each gate transmitting wire with the gate insulating layer interposed between the repair wire and the gate transmitting wire; and first and second dummy patterns on the lower substrate, wherein each dummy pattern has at least the same height as the gate transmitting wire. The Shiba's reference only discloses a liquid crystal display device comprising a source PCB and a gate PCB electrically connected with the plurality of source pads and the plurality of gate pads, respectively, the source PCB and the gate PCB being formed outside the area in which the sealant is formed such that the upper substrate is not formed over the source PCB or the gate PCB, and a plurality of transmitting wires being electrically connected with the gate and source pads across the sealant such that the source PCB is electrical connected with the gate PCB. Meanwhile, the Zhang's reference discloses a repair wire crossing with each gate transmitting wire with the gate insulating layer interposed between the repair wire and the gate transmitting wire, and first and second dummy patterns on the lower substrate, wherein each dummy pattern has at least the same height as the gate transmitting wire; however, the source PCB and the gate PCB are formed inside the area in which the sealant is formed.

*Re claims 6 and 9*, none of the prior art of record discloses, in combination with other limitations as claimed, a repair wire with a specific resistance of 10 micro-ohm/cm including first and second closed roofs, the first closed roof being formed along first



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edge of the upper substrate, the second closed roof being formed along second edge of the upper substrate.

The most revelant reference for claims 6 and 9, USPN 5,995,189 of Zhang, fails to disclose or suggest the repair wire with closed roofs formed along the first and second edges of the upper substrate. The Zhang's reference reference only discloses a repair wiring pattern without closed roofs formed across the sealant on the lower substrate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong



02/19/2005



**ROBERT H. KIM**  
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